SOLINSA
Support of Learning and Innovation Networks for Sustainable Agriculture

Agricultural Knowledge Systems In Transition:
Towards a more effective and efficient support of Learning and Innovation Networks for Sustainable Agriculture

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# SYNTHESIS OF THE LEARNING PROCESS

# Conclusions and recommendations for improved transdisciplinary learning in networks, including methods and tools for intermediary actors

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# Executive summary

This report is a synthesis of the lessons learned from the interactive approach to working with learning and innovation networks for sustainable agriculture (LINSA) in the field. The approach to the field work was that of participatory action research, which was implemented by a Reflective Learning Methodology in which LINSA workshops in the field were alternated with project workshops that enabled researchers to develop skills and capacities. These capacity building workshops were based around applying methods and tools that could be used in the field, and reflection on the experiences gained in the field. Methodology and the tools applied were evaluated; conclusions are given here.

**The Reflective Learning Methodology**

At the project level, the Reflective Learning Methodology enabled a rich and informed reflection of the case study work that fed into scientific synthesis, policy recommendations and a training course for transition partners. The reflection inherent in the methodology was shown to be valued by the partners and to lead to strong identification and commitment, as well as helping to improve the work at local level, to fine-tune the methods applied, and to increase understanding of the problems faced by LINSA.

**Limitations**

There was a tendency for researchers to report positive experiences and results, and problems or difficulties that arose during the participatory research process may have been under-reported. A further limitation to this approach to evaluating the Reflective Learning Methodology is that, joint analysis and reflection, done by researchers and practitioners together, actively combining scientific knowledge, analytical skills and practical experience was not always successfully achieved, which can be considered to be a missed opportunity. Time constraints also hindered the use of systematic methods for evaluation of the interactions, and researchers were reluctant to use quantitative evaluation methods to evaluate a participatory process. Despite these limitations, the evaluation of the interactions within SOLINSA has produced insights into the factors that enabled participatory action research processes. The results, and in particular those results that relate to the enablers of participatory action research, can be expressed as recommendations to future researchers.

**Approaching networks**

When approaching a network, it is essential to identify representatives of the target organisation who are willing to engage in participatory action research. Establishment of an alliance with a key LINSA representative, who understands the benefits offered to the LINSA, was found to be essential for participation. The individual contacts are essential for maintaining the relationship between the researcher and the LINSA, although they can also act as a gatekeeper and might exclude other people from involvement. It is desirable to gain as much understanding of the power relationships within the LINSA as is possible before starting the research, which can be achieved by applying classical qualitative research methods, such as guideline based interviews, document analysis, and

open observation of events. Potential key partners should be approached with the aim of gaining acceptance from the organisation, so it is important to be transparent about the intentions for the collaboration; including roles and objectives.

**Working with networks**

Building trust with the participants is a prerequisite for participatory action research, and trust is dependent on a psychological contract in which the aims, success criteria, framework, useable methodologies, mutual expectations, and rules of co-operation are clearly defined. An appropriate way of defining common interaction objectives is to respond to critical LINSA needs. The researchers noted that meeting in person is essential to collaboration.

LINSA are more likely to continue to participate if the benefits of involvement are demonstrated, so channels of communication should be maintained that provide the LINSA with tangible evidence of the achievements through the interaction. Potential support can for example be to facilitate LINSA interactions by offering skilled facilitation of processes or workshops, or to provide material facilities, such as meeting rooms or research facilities. The support can also be substantive with specific expertise, such as in policy analysis or in the application of communication technologies.

**Facilitation skills**

First and foremost though, participative processes require facilitation capacities, communication skills, empathy, curiosity and a clear idea of the researcher's own strengths and weaknesses. The frequent (even if virtual) presence of researchers in the forms of individual or group coaching, following actions, and accompanying or enabling group dynamics, can greatly enhance assistance to the LINSA.

It remains the role of the researcher to manage the collaboration, and it is crucial to not attempt to impose methodologies. Although the objectives of the research have to be made clear from the beginning, the different steps, including the methods and the time frame, need to stay flexible. To enable collaboration, it is the responsibility of the facilitating researcher to be equipped with sufficient social skills, along with knowledge of methods and tools, so that they can quickly and professionally respond to the individual needs of the collaborating LINSA. The inbuilt workshops in SOLINSA, which were designed to enable researchers to develop facilitation capacity, proved to be a major strength of the Reflective Learning Methodology.

**Five recommendations for collaboration between researchers and LINSA:**

1. Build reflection mechanisms into approach taken to collaboration with LINSA
2. Include self-reflection of researchers
3. Identify key collaborators in LINSA
4. Bring an offer of benefit to LINSA
5. Collaborate rather than dictate

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# 1 INTRODUCTION

One of the challenges of agricultural research is how the pan-European goal for increasing sustainability in agriculture can be reconciled with the insight that the actual change needs to take place at the local level. The aim of this report is to analyse the application of an approach to addressing the challenge of up-scaling from local learning and innovation networks for sustainable agriculture (LINSA) to a regional support framework. LINSA are characteristically complex and dynamic, and a research method was needed that gains an understanding of the processes of knowledge sharing and co- production, which lead to learning and innovation for sustainable agriculture. The requirement for conducting research in this case was to establish an ongoing, reflective mechanism for maintaining and enhancing the effectiveness of the network (the LINSA) by providing practical and useful tools for self-analysis and self-renewal (Bradford & Burke 2005). To draw conclusions and to make recommendations for practical tools and their application involves both an evaluation of the tools that were implemented, and an assessment of the overall methodology.

A difficulty of participatory action research is how to evaluate the success or otherwise of the interactions between researcher and participants. This was especially challenging in the case of SOLINSA because transdisciplinary processes are difficult to control; the results are unpredictable and sometimes indeterminate; and there are intangible results, such as improvement of relationships and trust building, which are difficult to quantify. However evaluation is needed for several reasons including learning for future research and for explanation of the value of the study, but most importantly, to enable implementation of the findings of the research. Matthews et al. (2008) point out that the additional skill and resource requirements for evaluating the outcomes of transdisciplinary research, which is usually already demanding of skills and resources within constrained budgets, are often not recognised, which leads to insufficient resources being allocated for the design and interpretation of the evaluation processes. Evaluation of transdisciplinary projects is often based on ad hoc reflection by the research team, or sometimes even by an individual researcher. While the value of experienced and expert researcher's opinion is acknowledged, several voices have called for a theoretically based and systematic evaluation (Midgley, 2011). The aim of this report is to review a methodology which was applied in the cases of 17 participatory action research case studies as part of the EU transdisciplinary research project SOLINSA: Support of Learning and Innovation Networks in Sustainable Agriculture.

This report will first describe the background and methodological framework of the SOLINSA project (see also Moschitz & Home, under review) before examining how the methodology was applied. The stages of collaboration are then reviewed, with a particular focus on the appropriate methods to use at the various stages of collaboration with LINSA in the field. The experiences of the participating researchers with various participatory tools will be described, which leads to some conclusions about when and how to use particular tools. Finally, the overall methodology is evaluated, and the outcomes of the evaluation are expressed in the form of recommendations to researchers interested in applying the reflective learning methodology.

# 2 BACKGROUND

Research can play a role in supporting LINSA, and the challenge is how to organise research in a way that mutual benefit is maximised. For meaningful support of LINSA, one has to identify what their problems are. For LINSA themselves to identify their problems and challenges, they need to find a space in which they can reflect on themselves. Research can open up such a space and empower LINSA to reflect by enabling them to step out of their daily routine. The form of this space and how this space is used is a matter of continuous negotiation, and such a process needs skilful researchers who have the capacity to do so and are willing to engage in the collaboration themselves. This points to the value of participatory research.

In participatory research however, processes are difficult to control; the results are unpredictable and sometimes indeterminate; and there are intangible results, such as improvement of relationships and trust building, which are difficult to quantify (Pohl & Hirsch Hadorn, 2008). The frequent (even if virtual) presence of transdisciplinary researchers; in the forms of individual or group coaching, following actions, and accompanying or enabling group dynamics, can greatly enhance assistance to the LINSA.

SOLINSA was based around field workshops with members of 17 European case study networks, which were defined as learning and innovation networks for sustainable agriculture (LINSA). The intention of the field workshops was to establish, in collaboration with the LINSA, an ongoing and reflective mechanism for maintaining and enhancing the effectiveness of the network (the LINSA). A wide range of network types were analysed: from local scale to national or transnational; from small, simple homogenous networks to large, complex and diverse networks with multiple actors; from incremental to radical innovation; from top-down to bottom-up origin; and with action fields including non-food oriented, food production oriented, and consumer oriented (Ingram et al., 2013). Networks were initially approached and invited to participate, but some declined to do so, and the selection strategy had to be adjusted accordingly. Approaching the networks was part of the learning process, and the failed approaches also proved to be exceptionally informative. The lessons learned from failed approaches inviting LINSA participation are discussed more fully in section 5.

LINSA are characteristically complex and dynamic, and a research method was needed that contributed to an understanding of the processes of knowledge sharing and co- production that lead to learning and innovation for sustainable agriculture. The requisite characteristics of the methodology were that it should be collaborative, in that non-scientific stakeholders should be included in deciding research objectives and strategies, while staying within the framework of scientific inquiry. The approach taken in SOLINSA is one of participatory action research, which focuses on establishing mechanisms that “set in motion a long-range, cyclical, self-correcting mechanism for maintaining and enhancing the effectiveness of the client's system by leaving the system with practical and useful tools for self-analysis and self-renewal” (Johnson, 1976).

| **Participatory action research**[1] |
| --- |
| Action research was pioneered by Lewin (1958) and is centred around three fundaments: the problem, the stakeholder, and what action the stakeholder will undertake to solve the problem. It involves the stakeholder in a diagnostic, active-learning, problem-finding, and problem-solving process. The philosophy behind the approach is that the intermediary actor (in this case, the consortium member) does not collect data and return it to the stakeholder (in this case the LINSA participants) as a written assessment with recommendations. Instead, the stakeholder and the intermediary actor collaborate in identifying and ranking specific problems, in devising methods for finding their real causes, and in developing plans for coping with them realistically and practically (Bradford & Burke, 2005). They then collaboratively reflect on the change outcomes. The primary aim when conducting action research is to establish an ongoing, reflexive mechanism for maintaining and enhancing the effectiveness of the network by providing the system with practical and useful tools for self-analysis and self-renewal (Bradford & Burke, 2005).<br>Participatory action research is primarily concerned with process rather than data collection and is in itself not appropriate in cases where there is a reason to compare results. The method encourages reflection on process and outcomes, which will be ongoing if they are meaningful for network members. In that way, the method is suitable for change assessment and self-monitoring in LINSAs. It is not obviously susceptible to cultural restraints and is suitable for application in any stage and form of existing and functioning LINSAs. The method is appropriate to support learning in LINSAs since it involves self-reflection by members of the network. Similarly the approach is suitable to facilitate innovation and efficient coordination of LINSAs.<br>The limitations of participatory impact analysis are pointed out by Ekboir (2003), who states that the relationships in agricultural and rural development networks are too complex for impacts to be reasonably attributed to individual agents. Instead he suggests evaluating networks by studying the organisational administration of networks, namely: 'the rules for generating, collecting and sharing information, financing procedures, intellectual property-rights regulations and availability of human and financial resources' (Ekboir, 2003:166). Ekboir's (2003) suggestions are however compatible with participatory action research and there is no argument that organisational administration should not be considered in problem evaluation, solution finding and strategy implementation.<br>The method involves actively making change, which requires a significant degree of trust from the network. It is also dependent on a problem having been identified and that the benefits of a proposed change clearly outweigh the risks inherent in change. The risks are not trivial. As change occurs, power relationships may also change, conflicts may occur, and/or other unforeseen harm may be experienced by the community and/or individuals.<br>The method also inherently involves linking actions with outcomes. Matthews et al. (2008) warn that this can be particularly challenging because of the intangibility of many outcomes, the difficulties in disentangling cause and effect for changes that occur and the difficulties in deciding the relative importance of outcomes. |

## 2.1 Methodological Framework

A particular methodological framework; the Reflective Learning Methodology, was developed in SOLINSA, which includes two spaces where learning took place. On the project level, the researchers met in reflection workshops to develop the approach, and to reflect on the outcomes of its application (2nd layer learning). On the local level, learning took place in the field, where knowledge was co-produced between LINSA stakeholders and the researchers (1st layer

[1] References mentioned in the shaded boxes can be found in Appendix 1 Further Information

learning). These processes were interlinked: The outcomes of the researchers' reflection workshops fed into the field work in the form of suggested methods and an initial set of research questions. Reports on the results of the field work contained a reflection on the methods that had been applied, responses to the research questions, and feedback to adapt the research agenda according to the stakeholder's needs. The recurring reflective processes that flowed through the research project thus made the learning and research agendas profoundly dynamic and included ongoing monitoring. Figure 1 illustrates the Reflective Learning Methodology, which included implementing a dynamic research and learning agenda. This framework aimed at producing project results that were meaningful in four different fields of implementation: policy, science, practice, and education of innovation brokers.

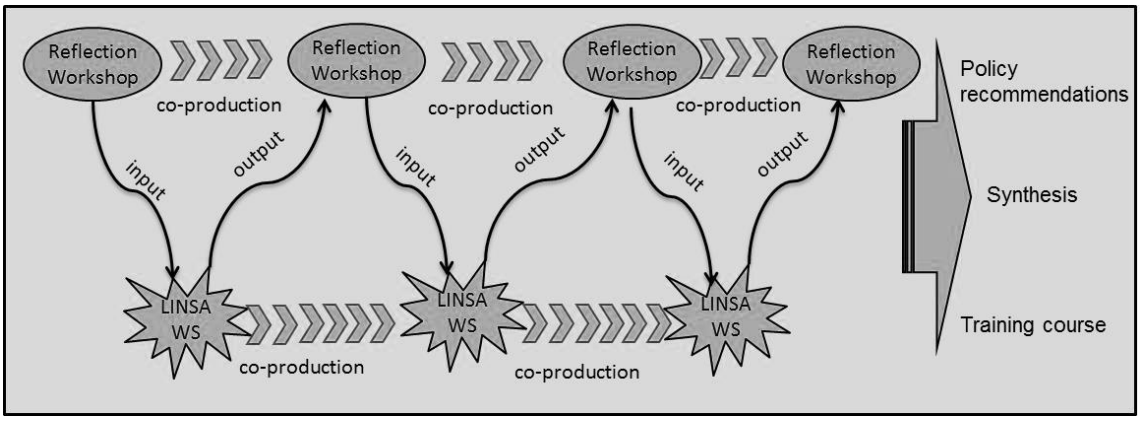


**Figure 1: Reflective Learning Methodology**
(Moschitz and Home, under review)

## 2.1.1 1st layer learning

The first layer learning part of this research was centred on two principal activities: capacity building workshops and LINSA workshops. Each capacity building workshop provided a platform for information exchange about the insights the researchers gained during the collaborations with LINSA. The LINSA workshops were the basis for collaboration with LINSA in the field in which data was also collected to contribute to understanding LINSA.

In the early stages of SOLINSA, we prepared for our first collaborative work and the first collaboration with the LINSA was one of assessment (asking the question: what is the current situation in this LINSA?) and joint visioning (asking the question: where do we want to go with this collaboration?). As collaboration proceeded, the guiding questions changed, and these changes were reflected in the capacity building workshops.

## 2.1.2 2nd layer learning: Learning about learning

The capacity building workshops also provide consortium members with skills and experience relevant to their field work and enabled exchange and discussion between researchers on the application of methods and tools. Furthermore, they provided a platform to monitor and evaluate the

transdisciplinary learning processes with LINSA by examining the success or otherwise of the implementation of methods and tools. While researchers explored LINSAs by joint learning, with the methodology revised and elaborated further, second layer learning involved taking a meta-perspective of the learning process and its impacts by reflecting on the applied methodology and its effects.

The underlying principle guiding the evaluation and monitoring of second level learning was based around Wenger's (1998) 'communities of practice' approach, which involves cycles of participation and reification. Participation describes taking part in a particular process, with all of the experiences and interactions that are associated with taking part, while reification describes giving form to the result or effects of the participation. By observing changes in the reification products, we could monitor and evaluate the learning processes. The Dynamic Learning Agenda was appropriate for monitoring of process and changes in process and could be applied to compare processes and understandings at workshops throughout SOLINSA.

| **Dynamic learning agenda** |
| --- |
| The Dynamic Learning Agenda is a method to record the essence of the learning trajectories of innovative projects. The tool especially attempts to reveal the tough issues that are often "swept under the rug" (Kleiner and Roth, 1996; B. Regeer, 2009)."The dynamic learning agenda is a tool that helps system innovation projects link long-term aims to concrete perspectives for actions by formulating the challenges that arise, recording them, and keeping track of them." (van Mierlo et al. 2010: 63) It involves a range of project participants in keeping a dynamic list of challenges and actions to respond to, ranked in importance. These are readdressed throughout the project, and ensure that the staff maintain focus on the true challenging issues. (van Mierlo et al. 2010: 64-65). The dynamic learning agenda is focussed on empowerment and streamlining action and learning agendas so is not susceptible to cultural constraints. It is not in itself a data collection method, so does not produce results that are inherently compatible although its ongoing reflective nature suggests that it will be constantly compared with earlier versions to monitor learning and for reflection on processes and outcomes. It is not particularly easy to apply the method since it requires efficient identification of problems and their reformulation into second order learning questions. It is however sufficiently flexible that it can be adapted to different scales of learning (individual, institutional) in all forms and stages of LINSAs. The method has the explicit aim of supporting learning in networks and is suitable for the facilitation of innovation and coordination of efficient LINSAs. |

# 3 APPLICATION OF THE METHODOLOGY

In this description of the methodology, it is important to define some key terms: methods and tools. A method is a way of thinking about a particular problem, and in this case is a way of producing new knowledge or deepening our understanding of a topic or issue. The method can also be expressed in the form of a guiding question. For example: What is the current situation in this network? Tools are the specific ways to apply the method, and can be seen as the means of answering the question. For example, a researcher could use focus groups (a tool) to answer the question in the previous example.

In the SOLINSA project, the researchers established a working agreement for research collaboration and commenced initial steps towards building trust. Then researchers and LINSA members then negotiated a shared direction of the research, including selection of which methods to apply. The actual collaboration took place in a series of five workshops with each LINSA and was supplemented by additional interactions, such as interviews. At the end of the project, representatives of each LINSA were invited to a European workshop for direct exchange with other LINSAs. The initial collaborations with the LINSAs started from a common point in establishing the goals of the collaboration. Depending on the goals, and the methods chosen, there was a wide range of paths the collaborations could take. The various method paths converge again in the finalization workshops that took place towards the end of the 2.5 year collaboration with the LINSAs. This is shown graphically in figure 2.

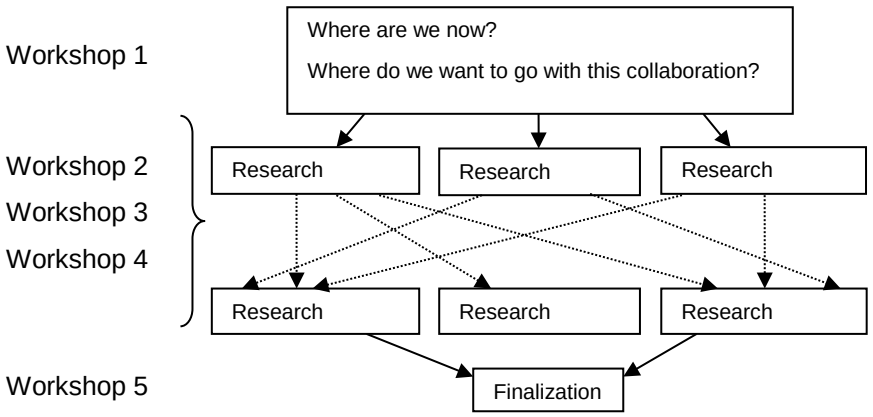


**Figure 2: Order of research questions to be addressed**

Before embarking on a methodology to study learning and innovation networks in sustainable agriculture, we needed to define our units of study (Brunori et al., 2011), which means we needed to define what we understand by LINSA and our criteria for selecting them (Ingram et al., 2013).

## 3.1 Defining the units of study (LINSA)

The units of study in SOLINSA are Learning and Innovation Networks for Sustainable Agriculture (LINSA). The core organising principle of these LINSA is social learning and co-creation of knowledge, as opposed to 'transfer of knowledge'. As these networks develop, differentiated tasks and roles emerge within the system so that accumulated knowledge can circulate into broader environments and contribute to enlarge the space for further innovation. These processes also have an influence on existing institutional arrangements. These characteristics were supplemented by the conceptual framework of SOLINSA (Brunori et al., 2011), which builds on the dynamic of change (from novelties to niches, regimes and landscapes) to which the innovation process and the role of institutionalized agricultural knowledge systems versus the role of movements (as loose networks) are fundamental. LINSAs are defined as "networks of producers, users, experts, CSOs, local administrations, formal AKS components, and SMEs that create mutual engagement around sustainability goals in agriculture and rural development, and to this purpose they co-produce new knowledge by creating conditions for communication, share resources, and cooperate on common initiatives" (Brunori et al., 2011).

## 3.2 Initiating collaboration

The collaboration between researcher and LINSA began in the first workshop, which we call LINSA 1. The following approaches were appropriate to answer questions about the current state of the network and to negotiate the direction of the collaboration: Participatory rural appraisal and joint visioning. Both of these are complex methodologies, they can take different shapes, depending on context and circumstances and include many different tools

| **Participatory Rural Appraisal: Where are we now? What is the current situation in this network?** |
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| Participatory rural appraisal is an approach used by non-governmental organizations and other agencies involved in international development and is a method in which teams of social scientists use on-site, simple, non-standardised methods to learn, analyse and evaluate the knowledge of the local population on the themes of rural life and rural resources. Participatory rural appraisal calls for an active role by local people so they are not only informants but are involved in the analysis and planning. The fundamental principles of PRA are<br>• Participation of the affected population to empower with their existing and developing abilities and their personal responsibility.<br>• The stakeholders are the experts. The attitude towards them remains respectful, appreciative and collaborative; even feedback containing critical reflection.<br>• Mutual learning stands at the centre, appropriate forms of communication are used so that there is a common understanding from the different perspectives.<br>• The reason and purpose are transparent (Chambers, 1993).<br>An specific application of participatory rural appraisal is the participatory market chain approach in which stakeholders across the whole market chain are brought together 'to get to know one another, build up trust and explore market opportunities that could be of mutual benefit' (Horton et al. 2010: 270). The fundamental principle remains that the aim should be to maximise participation by local people in the agricultural system: in this case, in the market chain.<br>A variation of participatory rural appraisal applied by Thiele et al. (2007) was to introduce horizontal evaluation into a participatory rural development project with the aim of improving the work of local project teams and to share knowledge within the network. In a horizontal evaluation workshop, a project team and peers from other organizations independently assessed the |

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| strengths and weaknesses of a research and development approach that was being developed and then compared the assessments. |

| **Joint visioning: Where do we want to go with this collaboration?** |
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| Visioning is a collective exercise carried out within a group of people to make establish a joint vision of future direction. Visioning is an unconstrained variation of scenario planning in which a desirable future is defined. With maximum participation, many different perspectives are shared to create a joint vision of the future that may help to achieve the desired future. This approach is centred around maximum participation, with the logic that those involved in defining an organisations future path will be most committed to following that path. The outcome of a joint visioning exercise is a medium-to-long-term plan that provides the framework for a strategy for achievement of the collective vision.<br>Visioning tools may also be used to promote thought and encourage discussion of future resource use and planning options, without the need to create a future-orientated document. Visioning can be used for integrated approaches (e.g. in policy-making) due to its cooperative character, which allows for multi-agency involvement, frequently including joint interagency leadership. It is often used if the widest possible participation for developing long-range plans/strategies or to formulate certain directions is needed. Visioning has a high potential to bring in often-overlooked issues and it accounts for relationships between issues (Ames, 1989). |

# 4 EVALUATION OF THE PARTICIPATORY LEARNING METHODOLOGY

## 4.1 Evaluation of workshop tools

Preliminary results of workshops with LINSA, provided by short reports on each workshop, were brought back to the research partners, which facilitated ongoing reflection and refinement of the chosen approach and enabled the researchers to find solutions for emerging difficulties. This two layer learning ensured that lessons from the previous workshop with LINSA were adequately discussed prior to the next LINSA interaction so that lessons learned could be absorbed. To evaluate the outcome of this process, preparation protocols for each capacity building workshop were written, and were evaluated after the seminar.

## 4.2 Evaluation of overall methodology

Designing an evaluation process and interpreting the findings as to the success of the collaborations remains a serious challenge (Matthews et al., 2008). Evaluation results remain of use in four primary ways: direct use in operational decision making, indirect use in policy process, symbolic use to demonstrate accountability and process use that brings behavioural and cognitive change through participation in the evaluation process (Horton et al., 2010; Horton & Mackay, 2003). Concepts such as engagement with interactions and trust are notoriously difficult to measure objectively and, although this is often stated desirable, are often neglected (Midgley, 2011). A participatory methodology for evaluation is learning-oriented evaluation (Horton et al., 2010), in which team leaders (here: researchers) evaluate major events and periodically reflect on their work and performance. Learning-oriented evaluation includes 'horizontal evaluation' (Thiele et al., 2007) in which researchers and practitioners share their experiences with peers in workshop or other participatory settings, and 'participatory reviews' of the collaborative actions and their outcomes in settings that are facilitated by an external evaluator (Horton et al., 2010). The aim of learning oriented evaluation is to produce recommendations that can be used to improve the participatory action research process (Horton et al., 2010; Thiele, 2007). This methodology appears appropriate in this instance.

To facilitate comparison of the local LINSA workshops and enable reflection at project level, a report on the learning process was prepared on each LINSA workshop using a common template with questions covering the topics of participation, trust, goals (and whether they were met), understanding, and interest. Evaluation data was collected by the researchers in each of the 17 case studies, while they were given freedom to choose whichever methods they felt were most suitable for answering the questions. We analysed the content of the answers and interpreted the content analysis according to the theoretical framework of transdisciplinary research. Data on the outcomes of the entire process were collected for the overall evaluation of the project methodology at a final reflection workshop and the process was evaluated by the partners.

# 5 LESSONS LEARNED

## 5.1 Lessons learned about tools

Given that LINSA were selected so that the widest possible spread across the selection criteria, there was a wide variation in the research questions that were addressed and the way in which they were addressed. Once the research question(s) had been decided, the researcher and LINSA representative selected one or more of the methods and accompanying tools, for LINSA interactions 2 through to 5, which were most suitable for reaching the negotiated goals. This choice was based on the capacity of the researcher, on the characteristics of the LINSA, and the range of possible tools that may be used to achieve the goals. Interviews were often used to supplement the interactive methods. An overview of the main tools used by researchers in the SOLINSA project is as follows.

### 5.1.1 World café

SOLINSA partners frequently (in 5 workshops) used the world café tool during their interactions with LINSA. The tool was considered to be quite user friendly and worked well with larger groups (up to 400 participants). Sometimes the world café tool was adapted so that the researcher directed participants to which of the tables they should visit. It was found to be particularly useful in the early stages of the collaboration when using it for appraisal of the network. The primary strength of the tool was that it enabled good contributions from the participants, although the facilitators reported making an effort to make sure all participants had an opportunity to speak and also set out the 'rules of the game', at the start of the workshops. The ratio of 20 participants for every facilitator was considered to be towards the maximum. Positive comments from researchers about world café include that "the workshop worked very well"; "the participants were very co-operative, and glad to share their ideas in a new original and operational way"; and "the workshop was a kind of challenge but went really well". A description of the tool is as follows:

| **World Café** |
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| The World Café is an easy-to-use workshop method that is suitable for group sizes from 12 and more participants, and used for fostering a creative process for collaborative dialogue and the sharing of knowledge and ideas, particularly in large groups. It is, simultaneously, a provocative metaphor enabling us to notice the often invisible webs of conversation and social learning which lie at the heart of our capacity to share knowledge and shape the future together (Brown and Isaacs, 2005). World café is particularly useful for generating input, sharing knowledge, stimulating innovative thinking and exploring action possibilities concerning real life issues and questions.<br><br>Based on the assumption that there is collective knowledge, networks should be brought together in a constructive conversation on topics that are relevant to its membership. It is about the change process to allow as many participants come to speak to them and thus to enable participation and commitment. The approach of the World cafes supports self-development and self-control and promotes self-organization (Brown and Isaacs, 2005). The world café method is not a data collection method but rather a knowledge collation method so it is of limited use for creating comparable results. It is particularly applicable in early stages of LINSAs since it is suitable for establishing the ground base of knowledge that exists within a network. The method has the potential to support learning in a network in that it collates and publicises existing knowledge, skills, or competences. The method can also facilitate innovation and efficient coordination of LINSAs. |

### 5.1.2 Focus groups

SOLINSA partners used moderated small group exercises, to think about specific questions in 10 workshops. For the purposes of this report, small group work, and brainstorming will come under the broad heading of focus groups as many of the strengths and weaknesses of focus groups apply to other forms of small group work. On five occasions, and particularly at the beginning of the collaboration, playful icebreakers, energisers, tension easing exercises, or games were included as part of the application of this tool. These were seen as important and part of working together with people. The tool was found to be useful at any stage of the collaboration because of its flexibility. For example, in one case it was used at the beginning of a collaboration to develop the LINSA as an organisation, identify problems in operation, and establish a new operating model. In another case, it was used in the middle of the collaboration to reflect the topical need to get a balanced picture of current situation in the sector and outline some ways to move forward. The tool was most effective when participants were provided with a facilitated communicative space, where they could brainstorm or freely talk to each other (about particular topics) and could reflect on the organisation and their and the others' role in it.

Skilled facilitation was considered to be the key to the success of focus group work. Comments about focus groups included: "It went very well, good contributions from participants, vivid discussions between the participants"; "Predominantly, the participants felt very good"; "The workshop was very successful and we are pleased with the results"; and "the way we discussed the scopes of rules was exceptionally great, as it was quick, efficient, and members reached consent in almost every subject". A description of the tool is as follows:

| **Focus groups/group work/brain storming sessions** |
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| Focus groups provide a platform for information and opinion exchange. A focus group refers to any collaborative session in which a group collectively drafts a solution to a problem. The structure of a focus group varies, depending on the problem and the individuals in the group. Focus groups allow interviewers to study people in a more natural setting than a one-to-one interview. In combination with participant observation, they can be used for gaining access to various cultural and social groups, selecting sites to study, sampling of such sites, and raising unexpected issues for exploration. Focus groups have a high apparent validity - since the idea is easy to understand, the results are believable. Also, they are low in cost, one can get results relatively quickly, and they can increase the sample size of a report by talking with several people at once (Henderson, 2009).<br>Focus groups may be sensitive to cultural constraints, depending upon the makeup of the group. If group members come from widely different levels of a hierarchy, members from subordinate levels may be reluctant to give their open opinions. Similarly, if participants represent particular institutions, they may be inclined to offer their contributions strategically and valuable insights may be lost. These constraints notwithstanding, focus groups are reasonably straight forward to organise and run, and are sufficiently flexible that they could be used in different stages of LINSAs. Focus groups are well suited to assessing both past and planned change. Focus groups are often one-off case studies, which means that they are limited in their ability to produce results that are comparable, to allow encourage ongoing reflection, or to allow monitoring of learning in a network. These limitations can be overcome to a degree if focus group exercises are repeated.<br>Focus groups have the potential, depending on the focus topic, to support learning in networks and to facilitate innovation and coordinate efficient LINSAs, for example by enhancing the understanding of participants of how the network functions and by enhancing the feeling of belonging of participants. This is a typical tool for action research and many kinds of qualitative |

data collection. It is particularly useful in the early stages the research, when the appropriate research questions are not fully known because it enables learning from experts about the topic. It is also useful towards the end of a project, when different opinions can be cross-checked.

### 5.1.3 Participatory mapping, mind mapping (and similar visualisation tools)

SOLINSA partners often (in nine workshops) used participatory mapping, or similar visualisation tools during their interactions with the LINSA in the field. Specifically, tools included mapping of network actors and their relationships; mapping of desired future possibilities; and collecting ideas on cards and then organising (and sometimes voting on) the cards to create a visualisation of the particular theme under examination. The flexibility of the visualisation tool makes it applicable in any stage of interactions between an transition partner and the network.

One researcher commented that this tool was great for looking into the future and that the participants engaged with the ideas and methods and understood the aims very quickly: “they carried out the exercises without any problems”. It was also used for looking back, which helped researchers to understand the origin and evolution of the network, and which enabled the framing of next steps and future actions and strategies. The tool was found to be appropriate for diverse groups of participants and also for large groups, although in cases that the group is large, it was helpful to have multiple facilitators. Comments on the tool include that “the participants appreciated the innovative way of working and of gathering ideas (graphic)”; and “the participants really liked the fact that they could exchange together”.

**Participatory mapping, Mind mapping, and similar visualisation tools**

Concept mapping, mind mapping and participatory mapping are not synonyms but their application is sufficiently similar that they can be treated together. Essentially the difference is that mind mapping aims to collect ideas while concept mapping aims to synthesize ideas (Buzan, 2000). Mind maps are diagrams used to represent words, ideas, tasks, or other items linked to and arranged around a central key word or idea. Mind maps are used to generate, visualize, structure, and classify ideas, and as an aid to studying and organizing information, solving problems, making decisions, and writing.

Mind mapping is a powerful graphic technique that can be applied to any situation in which improved learning and clearer thinking will enhance performance and effectiveness. As a non-linear method of organizing information, it allows the capture of the natural flow of ideas. Individuals or by groups can employ mind mapping to improve simple tasks, such as writing a memo, and to more complex tasks, such as obtaining a shared perspective on a complex project. Mind maps can be hand-drawn on flip charts or rendered with computer software (Novak & Canas, 2008).

There are no apparent cultural constraints to mind mapping and the method is reasonably easy to apply and intuitive to participate. It is particularly applicable to individual scales of learning although it can be used collectively in a workshop setting to create a participative mind map. Alternatively, individuals can construct their own and then discuss them as a group. Results however do not readily lend themselves to comparison. The method is flexible for different forms (it is not technically necessary for individuals to meet to work on the same mind-map) and stages of LINSAs and the stage of the LINSA dictates whether the exercise is considered to be mind-mapping or concept mapping. Depending on the task, the method is suitable for reflection on process and outcomes and can both support and allow monitoring of learning in a network. Similarly, the method can be used to assess change and to reflect on the development and function of a network.

### 5.1.4 Participatory Video

Some SOLINSA partners used participatory video (PV) in their collaborations with LINSA. PV requires some infrastructure and significant preparation (technology, special skills, etc.) but it is a very effective methodology, providing high level motivation, capacity building, facilitating discussion, reflection, community building. The SOLINSA research group gained some experience and skills in PV as part of their capacity building. Research partners reported that the applying PV generated constructive discussions, facilitated the clearing out of the basic principles of the research, was good for community building and resulted in a short video presentation that can be used as a boundary object. Making a film is interesting, can draw lots of positive energy from participants and creates a new communicative space where it is (as a LINSA member said) "easier to talk about difficult and complicated things we do not normally talk about". Films also greatly enhanced group identity and the feeling of community and belonging, and at least is some cases served as a tool for the presentation of the results of LINSA work to the outside world. In one particular case a LINSA film even won a price on an international rural film festival.

| **Participatory Video** |
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| "Participatory video is a form of participatory media in which a group or community creates their own film. The idea behind this is that making a video is easy and accessible, and is a great way of bringing people together to explore issues, voice concerns or simply to be creative and tell stories. It is therefore primarily about process" (Lunch & Lunch, 2006). As a process, it is particularly appropriate for use in combination with other tools such as Participatory Rural Appraisal (Lunch, 2004). Participatory video has been applied in a wide range of projects with the common goal of empowerment including: promoting local innovation and development from within organisations; a catalyst for community-led action; a tool for communicating with policy makers; participatory research, and program monitoring and evaluation (Lunch, 2004).<br><br>Participatory video is used to empower people and is therefore resistant to cultural constraints. Application of the method is reasonably straight forward provided the necessary equipment is in place and participants have some knowledge of its use. It is not a data collection method in itself, but rather a network building and strengthening tool.<br><br>Participatory video is flexible for different stages of LINSAs and is able to be applied in any form of LINSA provided the network members are able to meet in person. The method demands reflection on process and outcomes although, as it is often applied as a one-off, has little scope for assessment of change or ongoing reflection. The contribution of Participatory video to support and monitoring learning in network is based around its strength in network building and strengthening, both of which also contribute to the facilitation of innovation and coordination of efficient LINSAs.<br><br>Participatory video is a means of documenting local people's experiences, needs and hopes from their own perspectives. It is strongly based around local knowledge and practice and can be the catalyst for a process of analysis and change that stimulates creativity both within and beyond the community. Participatory video has the potential to give a voice and a face to the disempowered who might not be otherwise heard or seen, even in participatory programmes (Schugurensky, 2005). It also has a huge potential for organisational and community development, as well as the development of skills for communication, representation, creative thinking, etc. |

### 5.1.5 Presentation/discussion

The presentation/discussion format was used widely (during 10 workshops) in the LINSA workshops held as part of the SOLINSA project. Short presentations of the work done by stakeholders, followed by group discussion of the presentations, is a method familiar to many researchers and participants. It was used for several purposes including emphasising the idea of sharing achievement, and communicating areas where participants are currently engaged. A possible problem identified with the presentation/discussion tool was that, although some participants were engaged during the presentations, others were less able to participate and their opinions and viewpoints were not included in the discussions. Researchers sometimes had the impression that participants attended to be able to communicate with each other and the presentations were a hindrance rather than a help. Similarly, the background 'buzzing' was sometimes an annoyance for the presenters. In these cases, other more interactive tools may have been preferable. It was reported that it could be difficult to keep the participants' attention, although the tool works well: particularly with talented presenters and in an Informal and friendly atmosphere.

### 5.1.6 Supplementary interviews (and other qualitative methods)

Between workshop activities, which often included conventional interview and data source methods, were important for a variety of reasons and widely used during the course of the interactions with all of the participating LINSA. The role of interviews was found to be very important; even for those LINSA where interactive workshops worked well, but especially in cases where workshop interactions do not work out. In some cases, guideline-based interviews were the only form of interaction acceptable to LINSA and were then used as the primary means of data collection. Interviews were used to identify key contact people within a network and to gain an overview of political and organisational structures at the beginnings of collaborations. Researchers conducted complementary interviews or observations to find ways to ensure that all voices are heard and to build learning and data baselines, which were needed to go forward in the collaborations.

A further application of interviews and qualitative methods was to maintain communication channels with the key stakeholders who were identified early in the collaboration. Continuous presence, was found to be important and, as this occupies important resources from both parties, it is helpful to agree on a communication strategy from the beginning (e.g. skype communication between participative interactions).

## 5.2 Conclusions about tools

### 5.2.1 Flexibility is crucial

Researchers often chose to use multiple tools, and adaptations of tools, within a single workshop. Use of multiple tools needs time and also commitment of energy from participants, but if time is available, it was often seen as positive in terms of achievement and participant engagement. Early interactions with the key LINSA representatives could be used to define the interactions and a clear result of this evaluation is that the research must be adapted to the LINSA needs. For example, if workshops are found to be ineffective in enabling co-creation of knowledge, the researchers may choose to conduct complementary interviews or observations and find ways to ensure that all voices are heard. Researchers needed to be constantly aware of group dynamics. It is the responsibility of the facilitator that people feel comfortable during the workshop, that no one gets hurt, and that unproductive, or even destructive, paths are swiftly corrected.

Although the objectives of the research have to be made clear from the beginning, the different steps, including the methods and the time frame, need to stay flexible. Playful exercises, visualisations, small group discussions, facilitated discussions, and methodologies with a special interest, such as relevant games, were found to be effective during collaboration but have to be appropriate to context and seen as useful and desirable by the specific LINSA. Feedback from participants in workshops in which multiple tools were used was positive, with one researcher commenting: “We consider that the whole mix of the activities and their succession was very successful, as every stage emphasised mutual involvement, appreciation of achievements, and a balance of views” Another researcher commented that “the workshop gathered a wealth of information about the organisation, with special regard to group dynamics. At the same time, we generated organisational development and enhanced personal relations”.

Flexibility also included collaboration in the decision of how many interactions could be undertaken with the participating networks, which were integrated into a flexible research methodology/plan. This project started out with a proposal to conduct five workshops with each LINSA but it was necessary to revise this model in some cases to respond to participant needs: in other words, researchers need the capacity to remain flexible.

### 5.2.2 Enable implementation by building capacity

A recurring them throughout the feedbacks received when reporting the success or otherwise of the tools used in the interactions was that methodological knowledge is necessary for the facilitator to be able to offer the correct advice in the joint selection of the methods and tools to use. It is therefore fundamental for the researcher to have a core ‘tool box’, which should include the above-mentioned methods and tools. The key however is flexibility, so the researcher (or transition partner; see Helmle 2013) should also be willing to add new methods and tools, or to vary the tools as required. Furthermore, the researcher also needs the facilitation skills to apply the tools in practice.

To ensure that the researchers within SOLINSA had the capacity to provide the requisite advice, guidance and facilitation, each field workshop was preceded by an externally facilitated capacity building workshop for project partners, which also served the role of enabling reflection on the previous field workshops (shown in figure 1). The primary goals of these researcher workshops, in addition to building the capacity of project partners to enable them to work with the LINSA, were to ensure a sufficient level of commonality between the work at the local level, and to discuss and solve any problems that arose. The input from the local level was discussed and reflected within the project consortium, with the reflections used for further planning and developing the interactions with the local LINSA.

## 5.3 Lessons learned about the methodology

### 5.3.1 Limitations of evaluation

There was a tendency for researchers to report positive experiences and results, and problems or difficulties that arose during the participatory research process may have been under-reported. Responses to problem-oriented questions included in the evaluation questionnaires were given considerably less attention than the questions in which researchers could report achievements and successes. A further limitation of this study is that, although the researchers were evaluating participatory processes, the methods chosen to find answers to the questionnaires were rarely participatory and feedback was still mostly based on researchers' impressions. Time constraints hindered the use of systematic methods for evaluation of the interactions, and researchers were reluctant to use quantitative evaluation methods to evaluate a participatory process. Despite these limitations, the evaluation of the interactions within SOLINSA has produced insights into the factors that enabled participatory action research processes as well as identifying outcomes in the form of strategy directions and changes in organisational structures and ways of thinking. The results, and in particular those results that relate to the enablers of participatory action research, can be expressed as recommendations to future researchers as demanded by Horton et al. (2010) and Thiele (2007).

Most of the reported results from the evaluations were related to the process and participation rather than the achievement of outcomes. This is an artefact of two phenomena: firstly the project evaluation was carried out immediately at the end of the project, before outcomes can be expected to be observed (Horton & Mackay, 2003) and secondly it shows an absence of predefined and measurable outcomes in the participant guided transdisciplinary process (Pohl & Hirsch Hadorn, 2007). However, the goals also acknowledge the desirability of a review of the evaluation, which also includes some reflection on the evaluation process (Midgley, 2011).

### 5.3.2 Recommendation 1: Build reflection mechanisms into approach taken to collaboration

The final evaluation of the project considered both the self-evaluation of project by the participating researchers and local level view of participants in the case study LINSAs. The project partners interacted with LINSA and continuously reflected on the usefulness of this interaction, its challenges and outcomes. Participatory research requires good facilitation and maintenance of trust. Furthermore, in agreement with the findings of Moschitz (2013), it is a case of process management rather than project management, and for many, it was a new experience of research process. The process identified the desirability of collective continuous reflection that enables co-creation of knowledge. For many researchers, these represented new roles as facilitators and mediators, which meant that new skills were required, which supports the decision to build facilitation training, capacity building and internal reflection into the project.

### 5.3.3 Recommendation 2: Include self-reflection

This reflection was shown to be valued by the partners and to lead to strong identification and commitment, as well as helping to improve the work at local level, to fine-tune the methods applied, and to increase understanding of the problem. At the project level, the Reflective Learning Methodology enabled a rich and informed reflection of general conclusions from case study work that fed into scientific synthesis (Ingram et al., 2013), policy recommendations (Burkart et al., 2013) and a training course for innovation brokers (Rump et al., 2014). Nevertheless, we can conclude that verification of the co-creation of knowledge between researchers and stakeholders remains a challenge for the process because the requirement of a participant driven research agenda effectively removed baselines against which the success of the collaboration; essentially the co-creation of knowledge, can be evaluated. Furthermore, the dynamic nature of the methodology, along with the large variation of LINSA and the research groups, also meant that the LINSA workshops were not always effectively synchronised, which caused some operational problems with exchanges of experience between researchers. However, the outcomes, in the form of the responses to analytical questions, policy recommendations, and a training course, support the application of the Reflective Learning Methodology.

### 5.3.4 Recommendation 3: Identify key collaborators

A clear conclusion is that it is essential to identify representatives of the target organisation who are willing to engage in participatory action research. Establishment of an alliance with a key LINSA representative, who understands the benefits offered to the LINSA, was found to be essential for participation. The individual contacts are essential for maintaining the relationship between the researcher and the LINSA, although they can also act as a gatekeeper and might exclude other people from involvement. It is recommended to try to be as inclusive as possible, although LINSA partners should be chosen on the basis of their enthusiasm to participate rather than of their a priori interest from the project perspective. This implies that it is desirable to gain as much understanding of the power relationships within the LINSA as is possible before starting the research, which can be achieved by applying classical qualitative

research methods, such as guideline based interviews and document analysis, and open observation of events. A practical application of this recommendation is to create a shortlist of potential collaborators, on the expectation that some partners will withdraw at an early stage.

### 5.3.5 Recommendation 4: Bring an offer of benefit

Potential partners should be approached gradually and with a huge amount of humility. The aim of the approach is to gain acceptance from the organisation so it is important to be transparent about the intentions for the collaboration, including roles and objectives. Furthermore, it is important to be clear about the benefits of the research to the LINSA, which may otherwise be reluctant to commit time and effort. The commitment of resources can be justified by the researcher providing regular documentation of the process, such as short reports with descriptions of the achievements, or articles for their newsletters, that can help the LINSA to follow the process. Channels of communication should be maintained throughout the collaboration so that the LINSA can be continually provided with tangible evidence that something is being achieved through the interaction.

Persuasion for participation can be enhanced by clearly explaining the principles of participatory action research; that the partner can determine the research agenda, including collaboratively deciding research questions and methods. LINSA are more likely to participate if the benefits of being a research partner are stressed at an early stage. Interactions in LINSA are very situated and social scientists cannot intervene and impose their agenda unless it has come up organically. It is important to be clear about what the research team can offer the partner, as well as being clear about the limits of the researchers' potential contribution. Potential support can for example be to facilitate LINSA interactions by offering skilled facilitation of processes or workshops, or to provide material facilities, such as meeting rooms or research facilities. The support can also be substantive with specific expertise, such as in policy analysis or in the application of communication technologies.

### 5.3.6 Recommendation 5: Collaborate rather than dictate

The researchers noted that meeting in person is essential to collaboration, and maximum participation can be enabled by locating workshops in places that make attendance easier, such as piggybacking workshops onto existing LINSA events. Participatory methods occupy valuable resources from both parties, so it is recommended to establish a mutually acceptable strategy from the beginning of the collaboration. Building trust with the participants is a prerequisite for participatory action research, and trust is dependent on a psychological contract in which the aims, success criteria, framework, useable methodologies, mutual expectations, and rules of co-operation are clearly defined. An appropriate way of defining common interaction objectives is to respond to critical LINSA needs. Participative processes require facilitation capacities, communication skills, empathy, curiosity and a clear idea of the researcher's own strengths and weaknesses. Furthermore, the researcher should be aware of the potential for research fatigue amongst partners, which is likely to be highest amongst those who are the most involved, and therefore most interesting for further

collaboration in the research. On the other hand, sometimes participants were energised as a result of the collaboration and those who invested the most energy received the most benefits from the collaboration. In any case, it is worthwhile to explore the workload of the parties when making preliminary agreements about future interactions, because tensions in co-operation may occur if the terms of the initial agreements are not met.

## 5.4 Final conclusions on tools and methodology

It remains the role of the researcher to manage collaboration, and it is crucial to not attempt to impose methodologies. In one case, a LINSA refusal to be involved might have been avoided if the researchers had been more flexible with the interaction methods. Early interactions with the key LINSA representatives could be used to define the interactions and a clear result of this evaluation is that the research must be adapted to the LINSA needs. For example, if workshops are found to be ineffective in enabling co-creation of knowledge, the researchers may choose to conduct complementary interviews or observations and find ways to ensure that all voices are heard. Playful exercises, visualisations, small group discussions, facilitated discussions, and methodologies with a special interest, such as relevant games, were found to be effective during collaboration but have to be appropriate to context and seen as useful and desirable by the specific LINSA. Although the objectives of the research have to be made clear from the beginning, the different steps, including the methods and the time frame, need to stay flexible. To enable collaboration, it is the responsibility of the facilitating researcher to be equipped with sufficient knowledge of methods and tools that they can quickly and professionally respond to the individual needs of the collaborating LINSA. The inbuilt workshops in SOLINSA, which were designed to enable researchers to develop facilitation capability, proved to be a major strength of the Participatory Learning Methodology.

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# APPENDIX 1: FURTHER INFORMATION

**Further information about participatory approaches, methods, and tools**

## Participatory action research

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# Participatory rural appraisal

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| **Further information: Participatory rural appraisal** | **An example of application can be found under:**<br><br>Thiele, G., Devaux, A., Velasco, C. and Horton, D. 2007 Horizontal Evaluation : Fostering Knowledge Sharing and Program ImprovementWithin a Network, American Journal of Evaluation, 28: 493.<br><br>**Further information:**<br><br>Hoffmann, V.; Christink, A.; Lemma, M. 2009: Rural Extension Volume 2: Examples and Background Material. 3rd.ed., Margraf Publishers, Weikersheim<br><br>Cooke, B. and Kothari, U. 2001, Participation: The New Tyranny?, Zed London.<br><br>Chambers, R. 1993, Challenging the Professions: Frontiers for Rural Development, ITDG London.<br><br>Horton, D., B. Akello, L. Aliguma, T. Bernet, A. Devaux, B. Lemaga, D. Magala, S. Mayanja, I. Sekitto, G. Thiele and C. Velasco. 2010, Developing capacity for pro-poor innovation: The case of the Participatory Market Chain Approach in Uganda. Journal of International Development (22, 2).<br><br>Wikipedia: http://en.wikipedia.org/wiki/Participatory_rural_appraisal |

# Joint visioning

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## Focus groups

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## Participatory mapping

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# APPENDIX 2: TOOLS APPLIED IN WORKSHOPS

## LINSA workshop 1

| **LINSA** | **Workshop 1** |
|---|---|
| Hungary G7 | Focus group: Presentation/discussion: Time lines |
| Hungary Naturama | World Café: Focus groups: Presentation/discussion: Time line: Participatory mapping |
| Germany Rural women | Presentation/discussion |
| Germany DLG | |
| Latvia Biogas | Presentation/discussion: Participatory mapping |
| Latvia Fruitgrowers | Presentation/discussion: Participatory mapping |
| France Charte des Bonnes Pratiques d'Elevage | World Café |
| France RAD | Focus group: Participatory mapping |
| England LAND | Participatory mapping: time lines, joint visioning |
| England BHFP | Interviews: Personal communication |
| Italy Crisoperla | Presentation/discussion |
| Italy Red cow consortium | |
| Switzerland Natürli | World Café, presentation/discussion |
| Switzerland ADCF | Participatory mapping, semi structured interviews |
| Netherlands DBB | Participatory observation / seminars DBB Drenthe |
| Netherlands Boer & Zorg | SWOT analysis |
| Organic Data Network | Webinar |

## LINSA workshop 2

| **LINSA** | **Workshop 2** |
|---|---|
| Hungary G7 | Focus group |
| Hungary Naturama | Focus group: Participatory mapping: presentation/discussion |
| Germany Rural women | Presentation/discussion |
| Germany DLG | |
| Latvia Biogas | Focus group: Participatory mapping |
| Latvia Fruitgrowers | Focus group: Interviews: observation |
| France Charte des Bonnes Pratiques d'Elevage | Focus group: Participatory mapping |
| France RAD | Forage RAMI game |
| England LAND | World Café: Participatory mapping, SWOT (balloons and stones) |
| England BHFP | Interviews: Personal communication |
| Italy Crisoperla | Presentation/discussion |
| Italy Red cow consortium | |
| Switzerland Natürli | presentation, group discussions |
| Switzerland ADCF | SWOT analysis, visualisation, scenarios, brainstorming |
| Netherlands DBB | Participatory observation |
| Netherlands Boer & Zorg | Workshop network analysis: participatory observation |
| Organic Data Network | Presentation/discussion |

## LINSA workshop 3

| LINSA | Workshop 3 |
|---|---|
| Hungary G7 | Focus group: Presentation/discussion |
| Hungary Naturama | Focus group: Participatory mapping: world café: |
| Germany Rural women | Focus groups: Participatory mapping |
| Germany DLG | |
| Latvia Biogas | Focus group: Presentation/discussion |
| Latvia Fruitgrowers | Observation, interviews |
| France Charte des Bonnes Pratiques d'Elevage | Focus group: establishment of scenarios for the future |
| France RAD | participatory video: monitoring forage rami game |
| England LAND | Story telling (personal narratives) |
| England BHFP | Interviews: Personal communication |
| Italy Crisoperla | |
| Italy Red cow consortium | |
| Switzerland Natürli | presentation, group discussions |
| Switzerland ADCF | questionnaire |
| Netherlands DBB | Participatory observation |
| Netherlands Boer & Zorg | presentation and discussion |
| Organic Data Network | Webinar |

# LINSA workshop 4

| LINSA | Workshop 4 |
|---|---|
| Hungary G7 | Focus groups: Presentation/discussion: Participatory mapping |
| Hungary Naturama | Focus groups: Presentation/discussion: Participatory mapping |
| Germany Rural women | Focus groups: Presentation/discussion: Participatory video |
| Germany DLG | |
| Latvia Biogas | LINSA round table |
| Latvia Fruitgrowers | LINSA study tour, Knowledge flows survey, discussion |
| France Charte des Bonnes Pratiques d'Elevage | focus group: action plan |
| France RAD | focus group: discussion on basis of a virtual survey |
| England LAND | Force field analysis, rich pictures |
| England BHFP | Interviews: Personal communication |
| Italy Crisoperla | |
| Italy Red cow consortium | |
| Switzerland Natürli | |
| Switzerland ADCF | outcome mapping |
| Netherlands DBB | Participatory observation |
| Netherlands Boer & Zorg | |
| Organic Data Network | Participatory mapping |

# LINSA workshop 5

| LINSA | Workshop 5 |
|---|---|
| Hungary G7 | Presentation/discussion |
| Hungary Naturama | Focus groups: Presentation/discussion: Participatory mapping: participatory video tools. |
| Germany Rural women | Webinar |
| Germany DLG | |
| Latvia Biogas | Group discussion |
| Latvia Fruitgrowers | LINSA training seminar, field day, discussion |
| France Charte des Bonnes Pratiques d'Elevage | |
| France RAD | |
| England LAND | story telling, joint visioning |
| England BHFP | Interviews: Personal communication |
| Italy Crisoperla | Time line: Focus group |
| Italy Red cow consortium | |
| Switzerland Natürli | |
| Switzerland ADCF | focus group, visualisation |
| Netherlands DBB | Participatory observation of Round Table discussion |
| Netherlands Boer & Zorg | Evaluaton workshop: presentation and discussion |
| Organic Data Network | Participatory mapping |